



## Using Flood Insurance Study (FIS)

FIS is for which community (name): \_\_\_\_\_

\*Drainage Area of stream as referenced in FIS: \_\_\_\_\_

Hydrologic Region (as per USGS Report 00-4233): \_\_\_\_\_

Drainage Area Ratio( $\frac{\text{DA at Project Site}}{\text{DA from FIS}}$ ): \_\_\_\_\_

From FIS:

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

\*\*Adjusted for Drainage Area (if applicable):

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

Applicable Calculations and Description of Method Used:

*\* If the drainage area of the stream at the project site is significantly different from the drainage area at the point referenced in the FIS, the design discharge estimates should be weighted as described on page 36 of USGS Report 00-4233.*

*\*\* To use this method, the drainage area at the project site should fall between 50% and 150% of the drainage area from the FIS.*

## Using USGS Regional Regression Equations (USGS Report 00-4233)

Hydrologic Region (as per USGS Report 00-4233): \_\_\_\_\_

\*Mean Channel Slope (MCS) in ft/mi: \_\_\_\_\_ (Needed if 3 variable equations are used)

Des Moines Lobe Ratio (DML) if applicable: \_\_\_\_\_

\*\*Mixed Region Ratios (if applicable): \_\_\_\_\_

Design Flood Discharges:

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

Applicable Calculations and Description of Method Used:

\* See Appendix B in USGS Report 00-4233 for MCS at specific gage sites and USGS Report 03-4120 for MCS for streams with drainage area over 100 sq. miles.

\*\* See page 32 of USGS Report 00-4233 for instructions on calculating flows where the watershed is located in more than 1 hydrologic region.

## Using USGS Regional Regression Equations from USGS Report 87-4132

*(NOTE: The use of this method will be considered for drainage areas < 50 sq. miles until such time as the USGS publishes its report of Regional Regression Equations for streams with small drainage areas)*

Hydrologic Region (as per USGS Report 87-4132):

\*Mixed Region Ratios (if applicable):

Design Flood Discharges:

Q50 (cfs):

Q100(cfs):

Applicable Calculations and Description of Method Used:

\* See page 32 of USGS Report 00-4233 for instructions on calculating flows where the watershed is located in more than 1 hydrologic region.

## Using WRC Bulletin 17B (Log-Pearson III Analysis)

(Table 2 in USGS Report 00-4233 includes the recently published WRC Bulletin 17B estimates for gages on most Iowa streams.)

Stream Gage Referenced (name and number): \_\_\_\_\_

Location of Stream Gage (Sec/T/R, or River Mile): \_\_\_\_\_

\*Drainage Area of Stream at Gage: \_\_\_\_\_

\*\*Years of Record at Gage: \_\_\_\_\_

Drainage Area Ratio( $\frac{\text{DA at Project Site}}{\text{DA at Gage Location}}$ ): \_\_\_\_\_

Hydrologic Region (as per USGS Report 00-4233): \_\_\_\_\_

From WRC 17B Analysis:

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

\*\*\*Adjusted for Drainage Area (if applicable):

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

### Applicable Calculations and Description of Method Used:

\* If the drainage area of the stream at the project site is significantly different from that at the referenced stream gage station, the design discharge estimates should be weighted as described on page 36 of USGS Report 00-4233.

\*\* If there are less than 20 years of record at the gage site, WRC Bulletin 17B methods may not be appropriate for estimating flow frequencies without weighting with regional regression estimates as described on page 35 of USGS Report 00-4233.

\*\*\* To use this method, the drainage area at the ungaged project site should fall between 50% and 150% of the drainage area at the gage.

## Other Methods or Sources Used

Method or Source Used: \_\_\_\_\_

Reason for Using This Method:

\_\_\_\_\_  
\_\_\_\_\_

Design Flood Discharges:

Q50 (cfs): \_\_\_\_\_

Q100(cfs): \_\_\_\_\_

Applicable Calculations and Description of Method or Source Used: